Peabody, Daniel (EGLE)

From: Peabody, Daniel (EGLE)
Sent: Tuesday, May 12, 2020 9:19 PM
To: saric.james@epa.gov; Von Wallmenich, Theo/DET
Cc: Roberts, Keegan; john kern; Ruhala, Sydney (EGLE); Scott Kirchner; Bennett, Brian
Subject: Area 3 Pine Creek FSP
Attachments: EGLE_Comments_KalamazooRiver_OU5_Area3_PineCreekFSP.pdf; EGLE_Comments_KalamazooRiver_OU5_Area3_PineCreekFSP.docx

Jim,

Attached are EGLE's comments on the Area 3 Pine Creek FSP. Per your request I am providing a Word and PDF copy of the comments. I will have to type up a brief, formal transmission letter tomorrow which will have to be reviewed by my secretary.

Thanks,

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Kalamazoo River Superfund Site
Area 3 Pine Creek Impoundment
Field Sampling Plan
May 1, 2020

GENERAL COMMENTS

Commenting Organization: EGLE
General Comment #1: The main text of the FSP lacks details of sampling procedures that are needed by field sampling team. The FSP defers to SOPs for sampling details but the SOPs are not specific to the study which may lead to confusion for field staff. For example, SOP P-001 states that "not all components of this SOP may be needed." Further clarification needs to be provided to ensure that the applicable components of the SOPs are used as appropriate instead of requiring a deviation if data quality objectives do not require all components of the SOP. The SOPs themselves should provide more site-specific information, or additional clarification (that is well documented) should be provided to field staff to ensure that expectations, methods, etc. are clear and consistent.

Commenting Organization: EGLE
General Comment #2: A section on contingency requirements should be added to establish measures that will be taken if field conditions warrant deviation from the FSP. For example, if largemouth bass (LMB) of target size range are scarce, will the preference be to retain LMB outside the target size range or to collect Lepomis species as discussed in Section 3.2.

Commenting Organization: EGLE
General Comment #3: All SOPs that are referenced should be attached to the FSP. For example, SOP FD-001 is referenced in multiple locations but not included in the document.

Commenting Organization: EGLE
General Comment #4: Revise the document to provide the actual Eurofins lab that will perform the analysis and the required worksheets to complete the QAPP addendum. The worksheets that need to be included are: WS12, WS15, WS19&30, WS23, WS24, WS25, WS26 & 27, and WS28.

Commenting Organization: EGLE
General Comment #5: In multiple places the document refers to establishing a "baseline" total PCB SWAC for sediment and fish tissue for future LTM comparisons. EGLE agrees that there is currently not enough data to estimate a sediment SWAC for the Pine Creek impoundment so the data collected will be the first attempt at determining the current average total PCB concentration for sediment in Pine Creek. However, EGLE does not agree that the fish tissue sampling will establish a "baseline" for Pine Creek. The 2016 LTM Report (cited in the text) states that resident fish sampling in Pine Creek was for "establishing baseline concentrations in the Pine Creek Impoundment as sediment sampling during SRI activities in Area 3 demonstrated sediments are impacted with PCBs". Please revise the text to acknowledge baseline total PCB concentrations in fish tissue were established in 2012 and state that species-specific comparisons will be made to the 2012 data.

Commenting Organization: EGLE
General Comment #6: The document proposes to use Aroclor analysis for all tissue samples, which is consistent with the 2012 fish tissue sampling in Pine Creek. However, the current LTM data utilizes congener analysis for adult and YOY bass and Aroclor analysis for carp. In 2012, the LTM program did include congener analysis for fish tissue but samples from Pine Creek were analyzed for total PCBs using the Aroclor method. The field procedures and analytical procedures for this FSP and any LTM program developed for Area 3 should be consistent with the current program that is in-place for the other portions of Area 3 and the entirety of OU5. Typically, whole-body samples are sent to the lab for fileting except when fish need to be field processed for the collection of split samples. When the State has collected split samples of tissue in the past the general procedure followed is whole fish samples are brought to Lansing, EGLE WRD filets the fish (with Wood in attendance), and filets are given to each party for analysis by their laboratory.

Commenting Organization: EGLE
General Comment #7: In addition to abundance bluegill were targeted during the 2012 sampling event to evaluate risk to anglers. The 2016 LTM Report states, "Bluegill were also collected in Pine Creek Impoundment since they represent another target fish for human consumption (and were also abundant)". EGLE notes that anglers in Pine Creek target and consume other species of fish in Pine Creek, including northern pike. Pine Creek also sees year-round fishing pressure and is a popular destination for ice anglers that target bluegill and northern pike. Considering these factors, EGLE recommends bluegill collection be included in this sampling event instead of being contingent on the LMB collection efforts. Collection of northern pike should be considered for future fish tissue sampling or LTM events in Pine Creek.

Commenting Organization: EGLE
General Comment #8: A figure should be included to show the proposed areas where electrofishing will be completed.

SPECIFIC COMMENTS
Commenting Organization: EGLE
Section: 1 **Page #: 1** **Lines #: 1-3**
Specific Comment #1: The first sentence of the introduction inaccurately states that this FSP is for Area 4. This should be corrected to address Area 3.

Commenting Organization: EGLE
Section: 2 **Page #: 2** **Lines #: 22-23**
Specific Comment #2: The text states that the data collected is not intended to replace or revise prior remedial decisions. Clarify what will happen if the data suggests that MNR is not a viable remedy for the Pine Creek Impoundment. What actions will be taken if the data do not support MNR as the appropriate remedy or if it is determined that additional data collection over time and space may be needed?

Commenting Organization: EGLE
Section: 2 **Page #: 2-4** **Lines #:**
Specific Comment #3: The text in this section repeatedly uses qualitative language (i.e., "elevated", "unacceptable") regarding PCB concentrations and hot spots are also referenced without providing a threshold value that will be used to identify hotspots. Revise text to clearly identify the concentration thresholds used to define hot spots. Total PCB concentrations greater than 20 milligrams-per-kilogram (mg/kg) in sediment have been identified in Pine Creek and the site-specific remedial goal for sediment is an average total PCB concentration of 0.33 mg/kg

Commenting Organization: EGLE
Section: 2.2 **Page #: 4** **Lines #: 14-15**
Specific Comment #4: Provide the sample size goal for young-of-year (YOY) largemouth bass (LMB) that will be targeted for collection if YOY is collected. Note that the proposed number of fish samples needs to be approved by the Michigan Department of Natural Resources.

Commenting Organization: EGLE
Section: 3.1 **Page #: 6** **Lines #: 3-5**
Specific Comment #5: Figure 2 indicates that a 253-ft by 253-ft grid was used. Revise the text to clarify what site-specific parameters were used to establish this grid spacing.

Section: 3.1 Sediment Sampling **Page #: 6**
Specific Comment #6: The FSP states that SWACs will be calculated for the 0-6 inch and 6-12-inch intervals. Please calculate SWACs for all sampled intervals, including the 12-24 inch and 24-36-inch intervals.

Commenting Organization: EGLE
Section: 3.2 **Page #: 6** **Lines #: 6-7**
Specific Comment #7: The text discusses the 2012 fish collection efforts and indicates that LMB may not be abundant in the impoundment. Note that the 2012 sampling targeted LMB because smallmouth bass were not present in adequate numbers during collection. Clarify if any SMB may be collected as an alternative if present during collection.

Commenting Organization: EGLE
Section: 4.2 **Page #: 8** **Lines #:**
Specific Comment #8: Revise the text to clearly state that the accuracy of the GPS unit will be verified at the start and end of activities each day.

Commenting Organization: EGLE
Section: 4.3 **Page #: 8** **Lines #:**
Specific Comment #9: This section is lacking important details needed to complete sediment sampling. Provide details on the diameter of Lexan tubes that will be used to ensure that enough sample volume is obtained and additional parameters that will be analyzed in addition to chemical analyses, such as total organic carbon and grain size fraction. Also specify the radius within which the additional core attempts will be made and include details on sample acceptance criteria.

Also, the text states: "During advancement, if refusal is encountered above the target location depth or the core recovery is below 80%, additional core attempts will be advanced to achieve investigation objectives up to a maximum of three (3) additional attempts." If 80% is not achieved will the location be abandoned or will the core that had the highest recovery be sampled? Revise the document accordingly.

Commenting Organization: EGLE
Section: 4.4 **Page #: 9** **Lines #: 21**
Specific Comment #10: The text states that samples are labeled after filleting. Clarify if location information for sample collection will be retained in the field records.

Commenting Organization: EGLE
Section: 4.4 **Page #: 9** **Lines #: 11**
Specific Comment #11: The document states that fish will be kept in a decontaminated cooler for temporary holding. Fish should be kept in a live well until collection is the field collection is complete. That way fish can be kept alive so if there is a need to composite individuals can be grouped and so that any individuals (smaller or larger) than our target range or additional fish that were collected but not needed for sampling can be released. Care should be taken to handle as few fish as possible and release those that are not needed.

Commenting Organization: EGLE
Section: 5.1 **Page #: 11** **Lines #:**
Specific Comment #12: All waste collected that is contaminated will need to be properly disposed of. This would include utilizing proper handling, containerizing, and transportation procedures and selecting the proper landfill for disposal based on sediment, tissue, and waste characterization sample results. Soils or sediments removed from the site should not be taken back to the site for disposal. Rather, those materials should be containerized, handled, and disposed of, as appropriate. Disposal of PCB waste is regulated by the U.S. EPA. However, EGLE has a reference document available that discusses PCB waste handling here: https://www.michigan.gov/documents/deq/deq-ess-caap-manufguide-chap4_313417_7.pdf

Commenting Organization: EGLE
Section: 4.1, SOP P-002 **Page #: 4** **Lines #:**
Specific Comment #13: Specify the device that will be used to measure the depth of water column, e.g. pressure transducers, lead line, etc. Also provide details on how it will be ensured that a core is being driven vertically if any slopes are encountered at the sediment bed.

Commenting Organization: EGLE
Section: 4.3, SOP P-002 **Page #: 6** **Lines #: 16-17**
Specific Comment #14: The text states that manual push cores will be driven into the ground until 24 inches of penetration are achieved. As discussed in Section 3.1 of FSP, the target sample depth is 36 inches. Clarify why 24 inches of penetration is being targeted in this SOP.

Commenting Organization: EGLE
Section: SOP P-007 **Page #:** **Lines #:**
Specific Comment #15: SOP P-007 should be updated so that it is consistent with site-specific LTM practices. Specifically, EGLE notes that the fish selection criterion and compositing scheme

does not appear to match the fish selection criterion and compositing scheme in the current LTM plan.

Additionally, effort should also be made to avoid compositing adult fish. The site-specific fish selection criteria should help reduce the likelihood that a single sample generates in an adequate sample mass. In EGLE's experience, 3-5 young-of-year individuals are needed to produce enough mass for one sample. GEI is proposing to potentially collect 10 YOY fish, which may only generate 2 or 3 samples which may not be adequate for decision making.

Commenting Organization: EGLE
Section: 2.1, SOP P-019 Page #: 2 Lines #: 1-3
Specific Comment #16: The text states that "Excess sediment and soil generated from borings/core collection and sampling should be placed in an appropriate container pending characterization and proper disposal." However, Attachment A to this SOP provides "Return to source immediately after generation" as a management option. The same inconsistency is noted between wastewater disposal discussed in Section 2.2 and Attachment A of this SOP.

In general, investigation derived waste (IDW) (e.g. soils, sediments, etc.) should not be returned to the Site. IDW generated during site investigation activities should be properly containerized and stored, sampled and characterized, and handled and disposed of at a licensed and regulated off-site facility. Additionally, any beneficial re-use of soils or sediments would require rigorous analytical testing to characterize PCB and non-PCB constituents.

Section: 3, SOP P-021 Page #: 3 Lines #:
Specific Comment #17: While collecting analytical samples from each designated interval, care should be taken to avoid collecting sediments directly in contact with the liner.

Also, although the SOP is comprehensive when discussing how to store, handle, log and open the core liners the SOP fails to give adequate instruction regarding collection and homogenizing the sediment. Homogenization instructions are limited to "Fully homogenize material from each individual interval and place in laboratory provided containers with pre-printed labels and fill in the appropriate sample information." There is no mention of equipment needed for homogenizing, (spatulas, stainless steel bowls etc.), how to mix the sediment or how to determine when the sample is sufficiently homogenized. A procedure is needed to collect a representative sample for analysis that would include for randomly selecting soil/sediment to place in the sample jar for analysis should be included. Revise the document accordingly.